

What is claimed is:

1. A plug for occluding a blood vessel comprising:

a first body, having a diameter smaller than that of the blood vessel;

5 a second disc shaped hollow resilient body attached to the first tapered body, the diameter of the second disc shaped body being larger than the diameter of the first tapered body and the diameter of the blood vessel and

means attached to the inner part of the second disc shaped body, the means permitting a user to effect a change in the diameter of the second disc shaped hollow body to enable the removal of the plug from the occluded blood vessel.

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2. The occluding plug as claimed in claim 1 further including a third cylindrical body attached to the disc shaped body, said third cylindrical body providing access to the means for causing the change in diameter of the second disc shaped hollow body.

15 3. The occluding plug as claimed in claim 1 wherein the means causing the change in diameter of the disc shaped body comprise a filament attached to the inner circumference of the disc shaped body.

4. The occluding plug as claimed in claim 3 further including a third cylindrical body
20 attached to the disc shaped body, said third cylindrical body including an aperture to provide access to the means for causing the change in diameter of the second disc shaped hollow body.

5. The occluding plug as claimed in claim 1 further including a rounded nosepiece attached to said first body.

6. The occluding plug as claimed in claim 1 wherein the plug is constructed from the group consisting of silicone, polyurethane and polyisobutylene-based polymers

7. The occluding plug as claimed in claim 1 further including a longitudinal pilot hole for receiving a insertion device.

8. The occluding plug as claimed in claim 7 further including an insertion device for inserting the plug into a blood vessel, the insertion device having a needle, a tubular needle guard surrounding the needle, the tubular needle guard fitting into the pilot hole of the plug, a spring connected to the needle to propel the needle outwards and to thereby urge the plug into the vessel, and a lever operable to compress and decompress the spring.

9. The occluding plug as claimed in claim 1 wherein said first body is tapered.

10. A plug for occluding a blood vessel comprising:

a first body, having a largest diameter smaller than that of the blood vessel;
a second disc shaped hollow resilient second body attached to the first tapered body, the diameter of the second disc shaped body being larger than the diameter of the first tapered body and the diameter of the blood vessel so that upon insertion into a

blood vessel the disc shaped hollow resilient body will distend the blood vessel to hold the plug in place;

- means attached to the inner part of the second disc shaped body, the means permitting a user to effect a change in the diameter of the second disc shaped hollow
- 5 body to enable the removal of the plug from the occluded blood vessel; and
- a third body attached to the disc shaped body, said third body providing access to the means for causing the change in diameter of the second disc shaped hollow body.

11. The occluding plug as claimed in claim 10 wherein the means causing the change in

10 diameter of the disc shaped body comprise a filament attached to the inner circumference of the disc shaped body, the filament causing the disc shaped body to collapse when pulled by a user to permit removal of the plug.

12. The occluding plug as claimed in claim 10 wherein said third body includes at least

15 one aperture through which the filament extends.

13. The occluding plug as claimed in claim 10 further including a rounded nosepiece attached to said first body.

20 14. The occluding plug as claimed in claim 10 wherein the plug is constructed from the group consisting of silicone, polyurethane and polyisobutylene-based polymers

15. The occluding plug as claimed in claim 1 wherein said first body is conical.

16. The occluding plug as claimed in claim 10 wherein said third body is cylindrical.

17. The occluding plug as claimed in claim 10 further including a longitudinal pilot hole for receiving a insertion device.

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18. The occluding plug as claimed in claim 17 further including an insertion device for inserting the plug into a blood vessel, the insertion device having a needle, a tubular needle guard surrounding the needle, the tubular needle guard fitting into the pilot hole of the plug, a spring connected to the needle to propel the needle outwards and to
10 thereby urge the plug into the vessel, and a lever operable to compress and decompress the spring.